

## Remarks

### I. Status of claims

Claims 18-20 were pending.

Claim 19 has been rewritten in independent form.

Claim 20 has been canceled.

Dependent claims 21-33 have been added.

### II. Claim rejections under 35 U.S.C. § 112

The Examiner has rejected claims 18-20 under 35 U.S.C. § 112, second paragraph, "as being incomplete for omitting essential steps, such omission amounting to a gap between the steps." In particular, the Examiner has indicated that (emphasis added):

The omitted step is: heating the solid adhesive sheet to a temperature at or above its melting point such that the adhesive sheet melts and subsequently re-solidifies to bind the sheets into a bound text body. The omitted step is considered essential because the sheets cannot be bound into a text body by only applying the solid adhesive sheet; the solid adhesive sheet must be heated to its melting point to bind the sheets together.

The "Unclaimed Essential Matter" doctrine, however, applies only to "essential elements of the invention as defined by applicant(s) in the specification" (MPEP § 2172.01). Although the specification describes a sheet binding method that involves melting a solid adhesive sheet, nowhere does the specification teach or suggest that melting the solid sheet adhesive is an essential step of the claimed invention. For example, the specification certainly does not preclude the use of solid adhesive sheets capable of binding sheets using a pressure sensitive adhesive that binds sheets without being melted and re-solidified. Thus, the Unclaimed Essential Matter doctrine does not apply to claims 18-20.

Moreover, the Examiner's unsubstantiated assertion that "the solid adhesive sheet must be heated to its melting point to bind the sheets together" is incorrect. Clearly, there are solid pressure sensitive adhesive compositions that are capable of binding sheets without being heated to their melting point.

For at least these reasons, the Examiner's rejection of claims 18-20 under 35 U.S.C. § 112, second paragraph, should be withdrawn.

III. Claim rejections under 35 U.S.C. § 103(a)

A. Claims 18

The Examiner has rejected claim 18 under 35 U.S.C. § 103(a) over Luhman (U.S. 5,536,044) in view of Hocking (U.S. 6,726,423).

Claim 18 has been amended and now recites the following machine-implemented steps:

assembling from multiple sheets a text body having a spine characterized by a length dimension and a thickness dimension;  
dispensing a solid sheet adhesive across the thickness dimension of the a spine of the assembled text body;  
as the solid sheet adhesive is being dispensed, cutting the solid sheet adhesive to an effective width substantially corresponding to the length dimension of the spine of the assembled text body;  
and  
cutting the dispensed solid sheet adhesive to an effective length at least as long as the thickness dimension of the spine of the assembled text body

Luhman fails to even hint at the feature of cutting a solid sheet adhesive to an effective width substantially corresponding to the length dimension of the spine of an assembled text body as the solid sheet adhesive is being dispensed. Instead, Luhman merely teaches that the length of an adhesive sheet is cut manually to correspond to the thickness dimension of the paper stack 12. Thereafter, the width of the adhesive sheet may be cut to correspond to the length dimension of the paper stack 12. Although Luhman indicates that "cutting can be automated" (col. 7, line 29), it is unclear whether it is the cutting of the length or the width of the adhesive sheet that is automated. In any event, Luhman fails to describe how the automated cutting is implemented; Luhman certainly does not teach or suggest that a solid sheet adhesive is cut to an effective width substantially corresponding to the length dimension of the spine of an assembled text body *as the solid sheet adhesive is being dispensed*.

The Examiner has asserted that "Hocking discloses a method for binding sheets into bound text bodies having respective spines exposed for adhesive application and characterized by multiple length dimensions and multiple thickness dimensions which include automatically dispensing and cutting an adhesive sheet sized to correspond to the dimensions of the text body spine." Hocking, however, merely teaches a sheet binding apparatus that includes a spindle 13 for dispensing a sheet of adhesive with a pre-cut width and a cutter 20 for cutting the length of the adhesive to correspond to the thickness dimension of the stack of sheets to be bound. Hocking, like Luhman, fails to even hint at the claimed step of cutting a solid sheet adhesive to an effective width substantially corresponding to the length dimension of the spine of the assembled text body as the solid sheet adhesive is being dispensed. Indeed, to the contrary, Hocking expressly teaches that "Roll 12 is selected to by the width of the pages to be bound together avoiding the need to be cut or trimmed along the width dimension" (col. 2, lines 32-35).

The Examiner has indicated that:

It is also noted that broadly providing an automatic means to replace a manual activity which accomplishes the same result is not sufficient to distinguish the claimed invention over the prior art. *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958).

Amended claim 18, however, does not recite an automatic means to replace a known manual activity that produces the same result. Indeed, none of the cited references teaches or suggests an automated or manual method of binding sheets in which a solid sheet adhesive is cut to an effective width substantially corresponding to the length dimension of the spine of the assembled text body as the solid sheet adhesive is being dispensed over the spine.

For at least these reasons, the Examiner's rejection of independent claim 18 under 35 U.S.C. § 103(a) over Luhman in view of Hocking now should be withdrawn.

New claims 29-33 incorporate the features of independent claim 18 and therefore are patentable over Luhman and Hocking for at least the same reasons explained above.

#### B. Claim 19

The Examiner has rejected claim 19 under 35 U.S.C. § 103(a) over Luhman, Hocking, and Mallonee (U.S. 5,460,672).

For the purpose of the following discussion, the examiner is reminded that (emphasis added):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not on applicants' disclosure.

MPEP § 706.02(j) (emphasis added). Furthermore, as pointed out by the Patent Office Board of Appeals and Interferences:

The examiner should be aware that "deeming" does not discharge him from the burden of providing the requisite factual basis and establishing the requisite motivation to support a conclusion of obviousness.

Ex parte Stern, 13 USPQ2d 1379 (BPAI 1989).

Claim 19, which has been rewritten in independent form, recites that "multiple segments of solid sheet adhesive are dispensed along the length dimension of the text body spine."

The Examiner has acknowledged that "The references as combined do not disclose a method in which solid adhesive sheet is dispensed in multiple segments along the length dimension of the text body spine." Nevertheless, the Examiner has concluded that:

It would have been readily apparent to one of ordinary skill in the art at the time of invention that oversized books would require the application of an extra-wide adhesive sheet. Maloney discloses a method for dispensing multiple segments of sheet material along a length dimension to yield an extra-wide web of material (col. 1, lines 62-66). When utilizing the method of the references as combined to bind oversized books, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of the references as combined to dispense the solid adhesive sheet in multiple segments to create an extra-wide material web as suggested by Maloney to accommodate the extra length of oversized books.

With this rejection, however, the Examiner has failed to provide the requisite factual basis and failed to establish the requisite motivation to support her deemed conclusion that the features recited in claim 19 would have been obvious to one of ordinary skill in the art at the time the invention was made. The Examiner has acknowledged that none of the cited references teaches or suggests the invention recited in claim 19. To make-up for this failure, the Examiner has merely invented a theory about oversized books – an issue with which none of the cited references is concerned – and has concluded without any support whatsoever that the features recited in claim 19 are obvious.

The Examiner is requested to cite other art in support of her assertions. Alternatively, if the Examiner is aware of facts within her personal knowledge that provide the requisite factual basis and establishes the requisite motivation to support his deemed conclusion that the features recited in claim 19 would have been obvious, the Examiner is requested to provide an affidavit in accordance with 37 CFR § 1.104(d)(2). Otherwise, the Examiner's rejection of claim 19 should be withdrawn.

Moreover, the conclusion reached by the Examiner is not consistent with the teachings of the cited references. Indeed, based on the teachings of the cited references, one of ordinary skill in the art would have simply selected an adhesive sheet with a width that is wide enough to accommodate the length of the spines of the oversized books, rather than arrive at the invention recited in claim 19. Consequently, it appears that the Examiner improperly has engaged in hindsight reconstruction of the claimed invention, using applicants' disclosure as a blueprint for piecing together the cited prior art to defeat patentability. Without a proper explanation for combining the cited prior art to arrive at the invention recited in claim 19, the Examiner has failed to establish a proper *prima facie* case of obviousness and the rejection of claim 19 should be withdrawn.

In addition, MPEP § 2141.01(a) quotes *In re Oetiker*, 977 F.2d 1443, 1446 (Fed. Cir. 1992) for the rule that:

In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.

According to Mallonee, his disclosure "relates to the field of equipment and methods for making textile fabrics, and more particularly, to an apparatus and method for making a

relatively wide textile fabric from a plurality of textile webs joined together in side-by-side relative" (col. 1, lines 6-10). The field of making textile fabrics clearly is not the same as the field of binding sheets into bound text bodies. In addition, the field of making textile fabrics is not reasonably pertinent to the problem of binding sheets into bound text bodies with a method that includes dispensing solid sheet adhesive across the thickness dimension of a text body spine, which is the subject of the invention recited in claim 19. Indeed, solid sheet adhesive is not used in the field of making relatively wide textile fabric webs, "such as nonwoven textile webs used for bedding products" (col. 1, lines 15-16). Accordingly, a person of ordinary skill, seeking to solve a problem of binding sheets into bound text bodies with solid sheet adhesive, would not reasonably be expected or motivated to look to apparatus and methods for making textile fabrics, as taught by Mallonee.

For this additional reason, the Examiner's reliance on Mallonee in the rejection of claim 19 is improper and the Examiner's rejection should be withdrawn.

Finally, the improper combination of Luhman and Mallonee proposed by the Examiner would not teach or suggest all of the limitations recited in these claims. Indeed, claim 19 requires that multiple segments of solid sheet adhesive be dispensed along the length dimension of the text body spine. The Examiner has relied on the teaching of Mallonee to make up for the failure of Luhman, Hocking, and Mallonee to teach or suggest such a feature. Mallonee's textile web joining apparatus, however, does not *dispense* multiple segments of textile webs, contrary to the Examiner's assertion. Indeed, the entire purpose of Mallonee's invention is to *join* a plurality of textile webs together in side-by-side relation. Furthermore, Mallonee's textile web joining apparatus is not configured to dispense a sheet across the thickness dimension of a text body spine. Rather, Mallonee's textile web joining apparatus is suitable only for taking up the resulting joined textile web in a roll. Accordingly, since neither Luhman nor Hocking nor Mallonee teaches or suggests a sheet binding method in which multiple segments of solid sheet adhesive are *dispensed*, the combination of Luhman, Hocking, and Mallonee hardly would teach or suggest such a feature.

For this additional reason, the Examiner's rejection of independent claim 19 under 35 U.S.C. § 103(a) over Luhman in view of Hocking and Mallonee now should be withdrawn.

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New claims 21-28 incorporate the features of independent claim 19 and therefore are patentable over Luhman, Hocking, and Mallonee for at least the same reasons explained above.


#### IV. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

Charge any excess fees or apply any credits to Deposit Account No. 08-2025.

Respectfully submitted,

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